

Remarks

Claims 10 – 13 were previously withdrawn from consideration. The Applicants confirm cancellation of those claims. Of course, the Applicants reserve the right to file one or more divisional applications directed to the subject matter therein.

The Applicants acknowledge the rejection of Claims 1 – 9, 14 and 15 under 35 U.S.C. §112. The Applicants note with appreciation the Examiner's helpful and detailed comments concerning the continued applicability of that rejection, especially with respect to the discussion of page 6 of the Applicants' Specification and an alleged inconsistency with certain language in the claims. The Applicants respectfully submit that there is no such inconsistency.

There are two phenomenon relative to that issue in the Applicants' Specification. The first phenomenon is the "treatment" that is not applied in this invention. Such treatments are described as Examples in the Applicants' Specification. Such treatments may include gelatinization or destructuring or surface modification of the starches. Then, there is another phenomenon which is not a treatment. That second phenomenon is the simple drying or turbo-separation that may occur. Those second phenomena are in no way considered to be "treatments" in accordance with this invention.

It is clear that the "treatments" of the invention are of the type that effects the molecular structure of the cereal grain flour, for example. This type of "treatment" is typically a chemical-type treatment that causes molecular structures to be changed in some way. Those of ordinary skill in the art are readily aware of what this means. In fact, the Applicants respectfully submit that one of less than ordinary skill in the art can clearly understand what the term "treatment" means in the context of this invention as plainly set forth in the Applicants' Specification.

The Official Action, on page 2, alleges that the “Applicants have failed to reconcile the inconsistency between the “not subject to treatment” claim limitation, with a clear teaching as to the need to “modify the constitution” of the cereal grain.” First, the Applicants respectfully submit that this statement is incorrect. The Applicants’ Specification, on page 6, clearly states that “It is possible to modify the constitution of a cereal grain flour...” It does not say that it is necessary to do so. Therefore, the Applicants respectfully submit that it would be in error to take the position that the Applicants’ Specification provides a “clear teaching” as to the “need” to modify. There is no need to modify and there is no clear teaching that this is necessary. It is a step that can be performed if desired.

In any event, the Applicants respectfully submit that a simple mechanical step of drying or turbo-separation has nothing to do with a “treatment” as would be known to one of ordinary skill in the art. This is further supported by page 4 of the Applicants’ Specification, wherein it gives examples of “treatments” and distinguishes what the invention does as opposed to “the processes of the prior art.” Those of ordinary skill in the art can readily revert to the Applicants’ discussion in the “Background” section of their Specification, which spans pages 1 through 3, and readily see that the types of “treatment” refer to “chemical modification.” Hence, the Applicants respectfully submit that the Applicants’ Specification is not inconsistent at all. Moreover, the Applicants provide ample description of what they mean by “treatment” and go so far as to distinguish it from activities of the prior art. The Applicants therefore respectfully submit that Claims 1 – 9, 14 and 15 are in full compliance with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is respectfully requested.

The Applicants acknowledge the rejection of Claims 1 – 9, 14 and 15 over Lim and Suominen.

The Applicants respectfully submit that Lim is utterly inapplicable. In that regard, the Applicants note with appreciation the Examiner's helpful comments, especially with respect to Tables 1 – 4 of Lim and the situations where no solvent has been applied. The Applicants fully agree that those Tables have such a disclosure. The problem is that those Tables and the Examples associated with those Tables demonstrate that, when the solvents are not employed, a poor result is achieved. For example, Column 10, lines 37 – 39 of Lim specifically state that the molded articles that were formed from the untreated corn meal compositions were opaque in appearance with a brittle structure. Those untreated compositions were contrasted to treated corn meal and the articles that were produced with such solvent-treated corn meal compositions were brown-colored and translucent and had significantly improved tensile properties. This is discussed in Column 10, beginning at line 39 and extending through line 42.

The Applicants respectfully submit that it would hardly be obvious for one of ordinary skill in the art to utilize untreated corn meal when the prior art teaches that it is not a good thing to do. In other words, the Lim disclosure leads those of ordinary skill in the art away from the Applicants' claimed invention. There can be no doubt from a fair reading of the Tables and the Examples of Lim that one of ordinary skill in the art would be led toward applying a solvent to the various corn meals and would not head in the direction of untreated corn meals. For this reason alone, the Applicants respectfully submit that Claims 1 – 9, 14 and 15 are patentable over Lim.

Additionally, the Applicants respectfully submit that Lim fails to teach or suggest a mixture of at least one polymer with at least one cereal grain flour. Careful scrutiny of all of the Lim Examples reveals that there is no polymer to be found. This is an important feature of the invention nowhere taught or suggested by Lim.

Further, the Applicants respectfully submit that, in the absence of the polymer, one of ordinary skill in the art would have no reasonable expectation that the resulting mixture would have an average granulometry between 10 and 2000 μm as specifically recited in Claim 1, for example. It would be nothing more than utter speculation as to what the granulometry would be based on the teachings of Lim. The Applicants respectfully submit that Lim has no application to the solicited claims. Withdrawal of the rejection is respectfully requested.

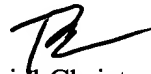
The Applicants respectfully submit that Suominen is also inapplicable. The Applicants note with appreciation the Examiner's helpful comments with respect to the potential applicability of Suominen. The Applicants particularly note the statement in the Office Action that "the step of "splitting" is not seen to be a "treatment" step excluded." The term "split" as utilized in Suominen is, no doubt, to those of ordinary skill in the art a type of "treatment." In that case, an enzyme is applied to the biopolymer to reduce it in size by splitting off dextrans from the starch. In other words, this is a molecular destructuring which is exactly the type of destructuring mentioned on page 4 of the Applicants' Specification at line 16. Hence, "treatment" of the biopolymers causes molecular degradation of the biopolymers into smaller pieces. Such a direct effect on the biopolymer molecule is the type of "treatment" referred to and contemplated by the Applicants as something that should not be done in their invention.

Thus, although the term "split" might, in ordinary circumstances and in a different context, simply mean mechanically dividing something into several pieces, that is not the case in Suominen, wherein Suominen plainly teaches application of an enzyme to degrade the molecular structure of a starch. This is, no doubt, a "treatment" as understood by those of ordinary skill in this art. Therefore, the Applicants respectfully submit that Suominen is inapplicable. Withdrawal of the rejection is respectfully requested.

The Applicants have added a new Claim 19 which is substantially the same as Claim 1 except that it recites that the mixture of the invention is not subject to chemical treatment. Support for this language is found on page 4 of the Applicants' Specification wherein it states that the cereal grain flour of the invention are not subject to any treatment as proposed in the processes of the prior art. The processes of the prior art are mentioned on pages 1 – 3 of the Applicants' Specification and those processes are, in several instances, said to be "chemical" modifications. Thus, the Applicants respectfully submit that Claim 19 is completely supported by the Applicants' disclosure. Also, it is clear that the prior art of record fails to teach or suggest the Applicants' claimed mixture of at least one polymer and at least one cereal grain flour which is not subject to chemical treatment and having an average granulometry between 10 and 2000 μm . Examination and allowance of Claim 19 is accordingly respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

TDC:lh
(215) 656-3381